

Chapter 7: Strengthen the Role & Impact of Ill Health Prevention

Tuberculosis

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Introduction

Background

Tuberculosis (TB) is an infectious disease caused by a bacterium known as *Mycobacterium tuberculosis*. It is spread by a person inhaling the bacterium in droplets coughed or sneezed out by someone with infectious tuberculosis. TB usually affects the lungs but can affect other parts of the body such as lymph nodes (glands), the bones and brain.¹ Tuberculosis (TB) remains a major global health problem. In 2012, an estimated 8.6 million people developed TB and 1.3 million died from the disease. The number of TB deaths is unacceptably large given that most are preventable.²

Transmission

Some people with respiratory tuberculosis are infectious. The risk of being infected depends on how long and how intense the exposure is to the bacterium. The risk of infection is greatest in those with prolonged household exposure to a person with infectious TB. In over 80% of people the immune system is able to effectively kill the bacteria. In a few cases a defensive barrier is built around the infection but the bacteria is not killed but rather becomes dormant / latent (Latent TB) and may become active when an individual's immune system is compromised³.

Symptoms & Treatment

As TB can affect any part of the body, symptoms are quite varied. The most common type of tuberculosis is the pulmonary (lung) tuberculosis which often presents with chronic cough, weight loss, intermittent fever, night sweats and coughing blood. The treatment of TB involves taking antibiotics over a number of months. The great majority of TB cases are sensitive to available antibiotics provided by the NHS and is curable with a full course of treatment.

TB in the UK

The latest UK annual TB report shows that rates of tuberculosis have stabilised in the UK over the past seven years, following the increase in the incidence from 1990 to 2005. However, despite considerable efforts to improve TB prevention, treatment and control, the incidence of TB in the UK remains high compared to most other Western European countries, with 8,751 cases reported in 2012, an incidence of 13.9 per 100,000 population. The majority of TB cases occurred in large urban

¹ Public Health England: <http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/Tuberculosis/>

² Global Tuberculosis Report, 2013: http://www.who.int/tb/publications/global_report/en/

³ Public Health England: <http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/Tuberculosis/>

centres, amongst young adults, those from countries with high TB burdens, and those with social risk factors for TB.⁴

TB in London

During the year ending March 2014, 2,925 (35.2/100,000) cases were reported among London residents, a reduction from 3,426 (41/100,000) cases in 2012. After two decades of increase, TB rates in London have stabilised: but remain considerably higher compared to other parts of the UK, accounting for 39% of notified cases across the UK. Overall North West sector in London which includes the London borough (LB) of Ealing has consistently reported highest TB notification rates. In 2013/14 the North West sector had the highest TB notification rate (51.4/100,000) in London.⁵

TB in Ealing

TB incidence in Ealing remains one of the highest in London and the North West sector. In 2013/14 Ealing had the second highest TB notification rate in the North West sector (60.8/100,000 population), which was nearly twice the London average (35.2/100,000 population) (Table 1).

Table 1: Number/rate per 100,000 population of new TB notifications in North West sector residents by local authority and year of notification – reported to the London TB register.

Local Authority of residence	2010		2011		2012		2013		Year ending 31/03/2014	
	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate
Brent	297	97.4	313	100.2	309	98.2	283	89.9	267	84.9
Ealing	210	62.9	247	72.8	247	72.5	214	62.8	207	60.8
Hammersmith & Fulham	54	29.9	68	37.3	46	25.6	48	26.7	48	26.7
Harrow	137	57.7	153	63.6	184	75.9	147	60.8	142	58.6
Hillingdon	126	46.8	132	47.9	140	49.7	101	35.8	110	39
Hounslow	192	77	185	72.6	192	74.1	165	63.7	153	59.1
Kesington & Chelsea	36	22.4	47	29.7	33	21.2	37	23.7	40	25.7
Westminster	63	29	68	31	54	24.1	61	27.2	61	27.2
North West	1115	57.1	1213	61.2	1205	60.3	1056	52.8	1028	51.4
London	3257	40.4	3519	42.9	3423	41.2	3017	36.3	2925	35.2

Source: Public Health England

In 2012, the majority of TB notifications in LB Ealing were males and persons aged 20-29. Most were born outside the UK. 15% had entered the UK in the previous two years, and 40% within five years. Almost half of all cases were Indian (90% born in India) (Figures 2 & 3).

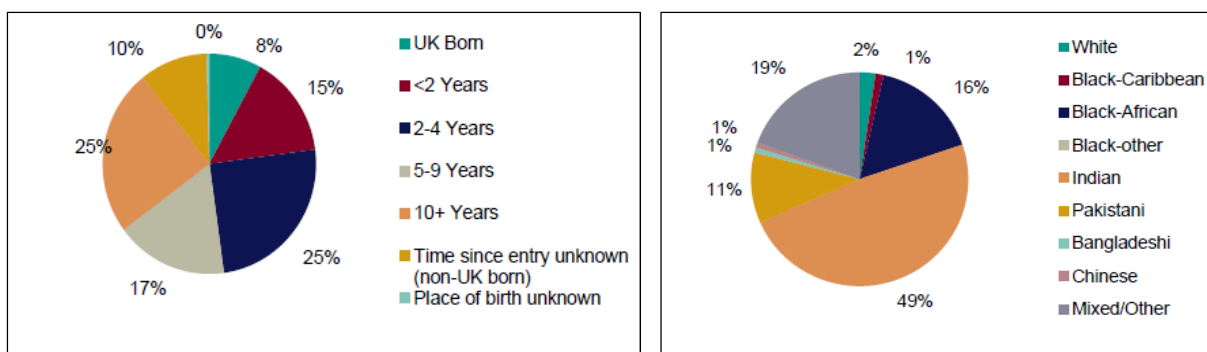
Figure 2: TB cases by place of birth and time since entry in UK, Ealing, 2012

Figure 3: TB cases by ethnicity, Ealing, 2012

⁴ Public Health England:

http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317139689732

⁵ Public Health England, 2014



Source: Public Health England

Treatment

The proportion of patients completing treatment within one year of notification during 2013/14 in Ealing (87.1%) was slightly better than the London average (85.2%). Hillingdon had the highest completion rate in the North West sector (90%).

The proportion of new TB notifications offered HIV tests in North West sector was 98.3% which was slightly higher than the London average (97.3%). Ealing hospital which provides treatment for the majority of the Ealing residents had a 98.6% offer rate. Out of 144 tests offered, 139 were done (96.5%).

In 2012 seven percent of TB cases in Ealing were resistant to Isoniazid while only 1% had multidrug resistance. These rates were similar to the London average.

TB Intervention

The latest Public Health England's Collaborative Tuberculosis Strategy for England (2014-2019)⁶ describes ten evidence based action areas for commissioners and providers within which to develop specific services. These include improving access and early diagnosis, high quality diagnostics, treatment and care services, contact tracing, vaccination, tackling drug resistance, tackling TB in underserved populations, new entrant latent TB infection (LTBI) screening, surveillance and monitoring and workforce strategy.

The London Health Programme has also developed an intervention plan in response to the high TB incidence rates in the city.⁷ The London TB Plan is made up of three parts:

- A TB Case for Change which sets out in detail why action is urgently needed
- A proposed TB model care which describes a range of recommendations intended to improve the early detection of TB, improve the effectiveness of treatment and reduce the risk of transmission
- An outline implementation plan which explains how the proposals will be put into practice.

Other important policy guidelines include:

⁶ <https://www.gov.uk/government/news/phe-commits-to-tackling-tb>

⁷ <http://www.londonhp.nhs.uk/services/tuberculosis/>

The NICE guidance on the clinical diagnosis and management of tuberculosis, and measures for its prevention and control: <http://guidance.nice.org.uk/CG117>

The NICE guidance for identifying and managing TB among hard-to-reach groups (e.g. people who are homeless, misuse substances, are prisoners, or are vulnerable migrants): <http://guidance.nice.org.uk/PH37>.

The Public Health England's migrant health guide which provides information for primary care practitioners on health needs and considerations for migrants to the UK:
<http://www.hpa.org.uk/MigrantHealthGuide/HealthTopics/InfectiousDiseases/Tuberculosis/>.

Information about pre-entry TB screening from Public Health England:
<http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/Tuberculosis/TBScreening/tbpreentryscreeningformigrants/>

Guidance from NHS and Public Health England for schools:
http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1194947327406

Guidance from Public Health England for those who work in hostels or with homeless people:
http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1194947325114

Identified needs

- Ealing has the second highest TB notification rate in the North West sector which was nearly twice the London average.
- The majority of TB notifications in LB Ealing are of young people aged 20-29. Most were born outside the UK.
- Almost half of all cases are of Indian ethnic origin and the majority (90%) were born in India.
- More than 1 in 10 (13%) patients diagnosed with Tuberculosis do not complete their treatment within one year of notification
- Seven percent of TB cases in Ealing are resistant to Isoniazid and 1% are multidrug resistant

Recommendations for Commissionersgaby

In order to effectively tackle the above highlighted needs, the following priority areas need to be addressed:

1. Raising TB awareness in the local population and strengthening the TB community outreach work in order to better engage local communities and vulnerable groups.
2. Screening domiciled high risk groups within 2-5 years of entry to the UK for TB and latent TB.
3. Screening new GP registrations from high risk populations for TB and latent TB, targeting areas with the highest incidence (south west Ealing)
4. Supporting TB patients to complete their treatment, especially those being treated in other hospitals. This should involve establishing better communication and coordination of care between EHT and the other TB services commonly used by Ealing residents.